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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/768,131	01/23/2001	Yong Cheol Park	2080-3-01	3339

35884 7590 12/18/2003

LEE, HONG, DEGERMAN, KANG & SCHMADEKA, P.C.
801 SOUTH FIQUEROA STREET
14TH FLOOR
LOS ANGELES, CA 90017

EXAMINER

ORTIZ CRIADO, JORGE L

ART UNIT	PAPER NUMBER
2655	6

DATE MAILED: 12/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/768,131

Applicant(s)

PARK, YONG CHEOL

Examiner

Jorge L Ortiz-Criado

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 4-7, 9 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Ito et al. U.S. Patent No. 6,160,778.

Regarding claim 4, Ito et al. discloses a method of formatting a recording medium having a predetermined recording capacity including a spare area for replacing defect areas (See Abstract), the method comprising the steps of:

registering defective area information in a defect area management list (See col. 10, lines 6-9);

replacing the defective areas with corresponding spare areas in response to the number of registered defective areas in the defect area management list (See col. 10, lines 22-41);
confirming whether or not an error has occurred due to lack of the spare area in comparison to the defective areas (See col. 10, lines 42-56; col. 12, lines 41-43; Fig. 4);

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and if it is confirmed that the error has occurred, adjusting the recording capacity of the recording medium by the number of un-replaced defective areas (See col. 12, lines 44-67 to col. 13, lines 1-52).

Regarding claim 5, Ito et al. discloses wherein the recording capacity adjusting step is achieved by adjusting recording capacity information written in a specified area of the recording medium (See col. 9, lines 32-34; col. 12, lines 44-54; col. 13, lines 30-41).

Regarding claim 6, Ito et al. discloses the recording capacity information is a logical sector number (See col. 9, lines 32-43).

Regarding claim 7, Ito et al. a method of formatting a recording medium having a predetermined recording capacity including a spare area, comprising the steps of:

registering defective segment addresses corresponding to defective segments in a first defect list in the recording medium (See col. 10, lines 30-32);

performing a first defect replacement in response to the defective segment addresses in the first defect list (See col.10, lines 20-46);

determining a first defect replacement error, wherein the first defect replacement error is caused when a size of the defective segments exceeds the spare area; checking un-slipped (un-replaced sector; un-replaced blocks) segments by determining a number of the defective segments not subjected to the first defect replacement due to insufficient spare area (See col. 10, lines 47-65);

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and adjusting the predetermined recording capacity of the recording medium by the number of un-slipped segments (un-replaced sector; un-replaced blocks) (See col. 12, lines 41-67 to col. 13, lines 1-52; Fig 4, 5).

Regarding claim 9, Ito et al discloses wherein the first defect replacement is a slipping replacement (sectors replacement) (See col. 10, lines 20-34; col. 11, lines 30-36).

Regarding claim 11, Ito et al. discloses wherein each defective segment comprises a defective sector (See col. 11, lines 18-36; Fig. 4,5,20A; col. 11, lines 30-36).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 7 -11 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Yamamuro U.S. Patent No. 5,956,309 in view Ito et al. U.S. Patent No. 6,160,778

Regarding claim 1, Yamamuro discloses a method of formatting a recording medium having recording capacity (Figs. 3,4, 10, 12)

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registering defective blocks in the primary defect lists (PDL) (See col. 10, lines 10-45; col. 14, lines 11-21; Fig. 12)

and performing a slipping replacement (sectors replacement) corresponding to a number of PDL registrations (See col. 14, lines 21-26);

Yamamuro fails to disclose determining a slipping replacement error in response to the number of registrations, checking a number of un-slipped (un-replaced) PDL registrations; and adjusting the recording capacity of the recording medium by the number of un-replaced un-slipped (un-replaced) PDL registrations if the slipping replacement error has occurred

However this feature is well known in the art as evidenced by Ito et al., which discloses a method of formatting a recording medium having recording capacity; registering defective blocks in a defect list; perform slipping replacement (sectors replacement) corresponding to a number of defect list registrations; checking a number of un-slipped (un-replaced) registrations and adjust the recording capacity of the recording medium by the number of un-slipped (un-replaced) registrations if the slipping replacement error has occurred (See col. 10, line 10-60; col. 11, lines 19-36; col. 12, line 41 to col. 13, line 52; col. 14, lines 30-55; Figs. 1A, 2,3,4,5)

Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention determining a slipping replacement error in response to the number of registrations, checking a number of un-slipped (un-replaced s) PDL registrations; and adjusting the recording capacity of the recording medium by the number of un-replaced un-slipped (un-replaced) PDL registrations if the slipping replacement (replacement sector) error has occurred in order to efficiently use the spare area, which is expandable and having the advantage that no replacement area is wasted as suggested by Ito et al.

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Regarding claim 2, The combination of Yamamuro with Ito et al. would show wherein the recording capacity adjusting step is achieved by adjusting recording capacity information written in a specified area of the recording medium (See Ito et al. col. 9, lines 32-34; col. 12, line 41 to col. 13, line 52; col. 14, lines 30-55; Figs. 1A, 2,3,4,5)

Regarding claim 3, The combination of Yamamuro with Ito et al. would show wherein the recording capacity information is a logical sector number (See Ito et al. col. 9, lines 32-43)

Regarding claim 7, Yamamuro discloses a method of formatting a recording medium having a predetermined recording capacity including a spare area (Figs. 3,4, 10, 12), comprising the steps of:

registering defective segment addresses corresponding to defective segments in a first defect list in the recording medium (See col. 10, lines 10-45; col. 14, lines 11-21; Fig. 12);

performing a first defect replacement in response to the defective segment addresses in the first defect list (See col. 14, lines 21-26);

Yamamuro fails to disclose determining a first defect replacement error, wherein the first defect replacement error is caused when a size of the defective segments exceeds the spare area; checking un-slipped (un-replaced sector; un-replaced blocks) segments by determining a number of the defective segments not subjected to the first defect replacement due to insufficient spare area and adjusting the predetermined recording capacity of the recording medium by the number of un-slipped segments (un-replaced sector; un-replaced blocks).

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However this feature is well known in the art as evidenced by Ito et al., which discloses a method of formatting a recording medium having recording capacity; registering defective blocks in a defect list; perform slipping replacement (sectors replacement) corresponding to a number of defect list registrations; determining a first defect replacement error, wherein the defect replacement error is caused when a size of the defective segments exceeds the spare area; checking un-slipped (un-replaced) segments by determining a number of the defective segments not subjected to the first defect replacement due to insufficient spare area and adjusting the predetermined recording capacity of the recording medium by the number of un-slipped segments (See col. 10, line 10-60; col. 11, lines 19-36; col. 12, line 41 to col. 13, line 52; col. 14, lines 30-55; Figs, 1A, 2,3,4,5)

Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention determining a first defect replacement error, wherein the first defect replacement error is caused when a size of the defective segments exceeds the spare area; checking un-slipped (un-replaced sector; un-replaced blocks) segments by determining a number of the defective segments not subjected to the first defect replacement due to insufficient spare area and adjusting the predetermined recording capacity of the recording medium by the number of un-slipped segments in order to efficiently use the spare area, which is expandable and having the advantage that no replacement area is wasted as suggested by Ito et al.

Regarding claim 8, The combination of Yamamuro with Ito et al. would show wherein the first defect list is a primary defect list (PDL) (See Yamamuro col. 10, lines 10-45; col. 14, lines 11-21; Fig. 12)

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Regarding claim 9 and 10, The combination of Yamamuro with Ito et al. would show wherein the first defect replacement is a slipping replacement (sectors replacement) (See Ito et al. col. 10, lines 20-34; col. 11, lines 30-36), (See Yamamuro col. 10, lines 10-45; col. 14, lines 11-21; Fig. 12)

Regarding claim 11, The combination of Yamamuro with Ito et al. would show wherein each defective segment comprises a defective sector (See Ito et al. col. 11, lines 18-36; Fig. 4,5,20A; col. 11, lines 30-36).

Response to Arguments

3. Applicant's arguments with respect to claims 1-3 and 7-11 have been considered but are moot in view of the new ground(s) of rejection.

4. Applicant's arguments with respect to claims 4-6 have been considered but are not persuasive.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "(1) determining a slipping replacement error in response to the number of PDL registrations, (2) checking a number of un-slipped (un-replaced) PDL registrations; and (3) adjusting the recording capacity of the recording medium by the number of un-replaced un-slipped (un-replaced) PDL registrations if the slipping replacement error has occurred") are not recited in the rejected

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claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

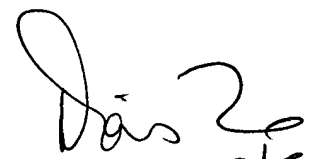
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge L Ortiz-Criado whose telephone number is (703) 305-8323. The examiner can normally be reached on Mon.-Thu.(8:30 am - 6:00 pm), Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris H To can be reached on (703) 305-4827. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-6743.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

joc


DORIS H. TO 12/15/03
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600